

**Navy Environmental Health Center**  
**Industrial Hygiene Single Stressor Direct Reading Sample Survey**  
**Form - [NEHC Form 5100/15a](#) Explanations and Definitions**  
**(Version 4/03)**

Industrial Hygiene Single Stressor Direct Reading Sample Survey Form - [NEHC Form 5100/15a](#)  
- This form is used to record information collected while performing air sampling with direct reading instruments. As many as five workers from the same shop may be listed on each form, but only one stressor. Personal breathing zone and area samples may be listed on the same form.

Form fields marked in this Explanations and Definitions as “Required” are fields that are thought to be important information. Some of the “Required” fields have conditions listed. If those conditions are not applicable, those fields are either not applicable or optional. Form fields marked in this Explanations and Definitions as “Optional” are fields that provide useful but extra information or are only used by some industrial hygiene groups. On the actual survey form, the “Optional” fields are shaded.

<b>FIELD NAME</b>	<b>DEFINITION</b>
Sample Date <b>(Required)</b>	The date the sample is collected.
IH UIC <b>(Required)</b>	The Unit Identification Code (UIC) of the command providing industrial hygiene support to the sampled command.
Activity <b>(Required)</b>	The name of the sampled command receiving industrial hygiene support.
UIC <b>(Required)</b>	The UIC of the sampled command receiving industrial hygiene support.
Field Office <b>(Optional)</b>	A city or other descriptive identifier of the location of the activity being sampled. This is useful in situations where the command has multiple field locations, and the activity name, UIC and building/location do not provide sufficient detail to discern between different field offices of the command. This field is optional and is currently used by only a few IH field activities.
Bldg./Hull # <b>(Required)</b>	The building number of the shore command or the hull number of the ship where the individual being sampled works or where the sample is being collected.
Shop Location <b>(Required)</b>	The room number or ship compartment number of the shop where the individual being sampled works or where the sample is collected.

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<b>FIELD NAME</b>	<b>DEFINITION</b>
Shop Code/Name <b>(Required)</b>	The number and/or name of the shop where the individual being sampled works or where the sample is being collected
Shift <b>(Required)</b>	The shift that the individual being sampled is working. Mark the appropriate number code box on the form. 1 = Day 2 = Evening 3 = Night
Frequency of Operation <b>(Required)</b>	The frequency of the sampled operation. Mark the appropriate number code box on the form. 1 = Daily 2 = 2-3 Times/Week 3 = Weekly 4 = 2-3 Times/ Month 5 = Monthly 6 = 2-3 Times/Year 7 = Yearly 8 = Special Occasions
Duration of Operation <b>(Required)</b>	The duration of the sampled operation. Mark the appropriate number code box on the form. This is the usual or normal time it takes to perform the operation. 1 = 0 - 15 minutes 2 = 15 - 30 minutes 3 = 30 - 60 minutes 4 = 1 - 2 hours 5 = 2 - 4 hours 6 = 4 - 6 hours 7 = 6 - 8 hours 8 = >8 hours
Personal or Area <b>(Required)</b>	Record whether this is a personal direct reading air or general area direct reading air sample. Circle "Personal" or "Area".
Employee Name (Last, First, MI) <b>(Required for personal samples)</b>	The complete name of the individual being sampled.
SEG Population ID <b>(Optional)</b>	Similar Exposure Group (SEG) Population Identification: A number or name of a similarly exposed group as that of the individual being sampled or for the sampled operation. A SEG is defined by the industrial hygienist. This field is optional and is currently used by only a few IH field activities.
Gender <b>(Required for personal samples)</b>	Record whether the individual being sampled is male or female. Circle "Male" or "Female".

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FIELD NAME	DEFINITION
SSN/Badge # (SSN (or other number for foreign nationals) - Required for personal samples) (Badge # - Optional, if SSN or other identification number (for foreign nationals) is used)	It is preferred that the full social security number (SSN) be documented for the individual being sampled. However, at least, the last 4 digits of the SSN should be documented. The badge number can also be documented for the individual being sampled, particularly if the individual does not have a SSN for some reason (e.g., foreign national, etc.).
Job Title (Required for personal samples)	The job title of the individual being sampled.
Mil/Civ/FORNAT (Required for personal samples)	Record whether individual being sampled is military, civilian or a foreign national. Circle "M" for military, "C" for civilian or "FN" for foreign national.
TAD (Required for personal samples)	Record whether the individual being sampled is at the activity on temporarily assigned duty (TAD). This gives you information so that sampling information, SF600s or other notifications can be sent or the proper (parent) activity.
Parent Activity (Required for personal samples, if TAD is yes)	When an individual being sampled is at an activity on TAD, the parent activity is the name of the command to which an individual normally belongs. This gives you information so that sampling information, SF600s or other notifications can be sent or the proper (parent) activity.
Parent UIC (Required for personal samples, if TAD is yes)	When an individual being sampled is at an activity on TAD, the parent UIC is the UIC of the command to which an individual normally belongs. This gives you information so that sampling information, SF600s or other notifications can be sent or the proper (parent) activity.
SF600 Sent to: (Optional) (Computer applications such as IHIMS might require this field for some sample types)	The name of the clinic to which the standard form 600 is sent in order to be included in the medical record of the individual being sampled.
Worksite (Optional) (Computer applications such as IHIMS might require this field for some sample types)	A description of the location inside the room or ship compartment where the sample is actually collected.

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FIELD NAME	DEFINITION
Distance from Source (Optional) (Recommended for general area samples) (Computer applications such as IHIMS might require this field for some sample types)	The distance, in feet, between the source of contamination and the sample collection location.
Boundary (Optional) (Computer applications such as IHIMS might require this field for some sample types)	Record whether the sample is collected inside or outside any boundaries or whether there is no boundary present. Circle “In” for inside the boundary, “Out” for outside the boundary or “No” for no boundary present.
OPCODE (Required)	The operation code, which most closely matches the operation being sampled. The list of operation codes can be found in the Industrial Hygiene Field Operations Manual, Appendix 3-A.
Operation (Required)	The operation name from the operation code list, which most closely matches the operation being sampled. The list of operations can be found in the Industrial Hygiene Field Operations Manual, Appendix 3-A.
Task (Required)	A short descriptive identifier that further defines the sampled operation, providing more detail.
Related Shop SOP (Optional)	A number or name of any standards of practice (SOP) used during the sampled operation. This field is optional and is currently used by only a few IH field activities.
Materials/Products Used (Required)	A description of the materials or product used during the sampled operation that contain the sampled stressors (e.g., welding rod, spray paint, degreaser, etc.). If no materials/products are used, state “None”.

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FIELD NAME	DEFINITION
Ventilation Description (Required)	From the following list, select the most closely matching ventilation type to that being used during the sampled operation: a. Natural b. General c. Small Booth d. Large Booth, non-walk-in e. Large Booth, walk-in f. Canopy Hood g. Glove Box h. Laboratory Hood i. Free Hanging j. Lateral Slot k. Push-Pull l. Downdraft m. Metal Working/Wood Working n. Low Volume-High Velocity
Ventilation Used (Required)	Record whether the ventilation present is used during the sampled operation. Circle “Yes” or “No”.
Ventilation Meets Specs (Required)	Based on measurements, record whether the ventilation present meets applicable standards or guidelines. Circle “Yes”, “No” or “Unknown”.
Respirator # (Required for personal samples, if respirator is used)	The NIOSH approval number (“TC-“ number) for the respirator used, if any, by the individual being sampled.
Respirator Description (Required for personal samples)	A description of the respirator used, if any, by the individual being sampled, including: manufacturer, model, respirator type, facemask type, seal fit, air delivery type, escape provision, cartridge type, filter type, etc. If no respirator is used, state “None”.
PPE Code(s) (Optional)	The code(s) of the personal protective equipment used, if any, by the individual being sampled. The list of codes to use can be found in Industrial Hygiene Field Operations Manual, Appendix 3-A.
PPE Description (Required for personal samples)	A description of any personal protective equipment used, if any, by the individual being sampled. If no personal protective equipment is used, state “None”.
Sample Duration (Required)	The length of the sample, in minutes, calculated from the sampling instrument “on” and “off” times.
Sample # (Required)	The unique number used by the IH group to identify and track the sample.

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FIELD NAME	DEFINITION
CAS #/Stressor <b>(Required)</b>	The Chemical Abstracts Service (CAS) registry number of the stressor being sampled. A list of stressors with CAS numbers and exposure standards is in the Industrial Hygiene Field Operations Manual Appendix A Table Z-1-A and Table Z-2, the Industrial Hygiene Field Operations Manual Appendix B Table 1.  The stressor is the chemical, physical or biological contaminant being sampled. Lists of chemical stressors with exposure standards is in the Industrial Hygiene Field Operations Manual, Appendix A, Table Z-1-A and Table Z-2 and the Industrial Hygiene Field Operations Manual Appendix B Table 1.
LOD <b>(Required, if applicable to instrument)</b>	The limit of detection of a sampling instrument for a particular stressor.
Result <b>(Required)</b>	The result of a measurement from a sampling instrument.
Concentration <b>(Required)</b>	The concentration of the particular stressor of a sample.
8-hour TWA <b>(Required for personal samples, if appropriate for combined sample durations and stressor)</b>	The calculated 8-hour time weighted average of a particular chemical stressor sampled for the individual being sampled on the particular sample date (to be calculated by the sampler or reviewing IH).
Field Calibration Method <b>(Required)</b>	The method used to calibrate the sampling instrument
Field Calibrated By <b>(Required)</b>	The printed name and signature of the person performing field calibration on the sampling instrument.
Pre Cal Date <b>(Required)</b>	The date the sampling instrument is pre calibrated. This must be the same date as the post calibration date and sample date unless sampling is performed across the midnight hour.
Post Cal Date <b>(Required)</b>	The date the sampling instrument is post calibrated. This must be the same date as the pre calibration and sample date unless sampling is performed across the midnight hour.
Field # <b>(Optional)</b>	The number used to identify the sample in the field.
Instrument Mfg. <b>(Required)</b>	The manufacturer of the sampling instrument.
Instrument Model <b>(Required)</b>	The model of the sampling instrument.
Instrument Serial # <b>(Required)</b>	The serial number of the sampling instrument.

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<b>FIELD NAME</b>	<b>DEFINITION</b>
Instrument Setting/Mode (Optional)	The particular instrument setting/mode for the sampling instrument.
Field Calibration OK (Required)	Record whether the sampling instrument calibrated properly, by marking the appropriate box on the form: “Yes” or “No”.
Last Mfg. Cal Date (Required)	The date the sampling instrument was last calibrated by the manufacturer or calibration laboratory.
Next Mfg. Cal Date (Required)	The date the sampling instrument is next due to be calibrated by the manufacturer or calibration laboratory.
Time Off (Required)	The time the sampling period ended for each sample (i.e., when the sampling instrument is turned off).
Time On (Required)	The time the sampling period began for each sample (i.e., when the sampling instrument is turned on).
Calculations (Optional)	Any calculations associated with sample collection, equipment calibration, sample results or time weighted averages.
Exposure during the unsampled period is (Required for personal samples)	The exposure for the individual being sampled during the unsampled period on the sample date. Mark the appropriate box on the form: “Same as sample period”, “Zero” or “Other”. For “Other”, please specify conditions.
Shift Length (Optional) (Computer applications such as IHIMS might require this field for some sample types)	The length of the shift that the individual being sampled works.
Actual Length of Sampled Work (Required for personal samples)	The actual amount of time the operation being sampled is performed on the sample date. This may or may not correspond to the sample duration.
Time Course of Events/Comments (Required)	A <u>detailed</u> chronological description of the operation being sampled and any other comments or observations about the sample period. Anyone reading this time course of events should be able to develop a mental image of what occurred during the operation.
Sampler (Required)	The printed name and signature of the industrial hygienist, industrial hygiene technician or workplace monitor performing the sampling.

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FIELD NAME	DEFINITION
Date Completed (Required)	The date the form is signed by the industrial hygiene technician, workplace monitor or industrial hygienist performing the sampling.
Reviewing IH (Required)	The printed name and signature of the industrial hygienist reviewing the sample form.
Date Reviewed (Required)	The date the form is signed by the industrial hygienist reviewing the sample form.
Data Entered By (Optional)	The printed name and signature of the person entering the sampling form information into the sample database. This only applies if the IH group utilizes a sample database.
Date Entered (Optional)	The date the sampling form information is entered into the sample database. This only applies if the IH group utilizes a sample database.
Privacy Act Statement (Optional) (But may be required by some Commands for legal purposes)	To be read, signed, and dated by the individual(s) being sampled, if required by your Command.